12. (Twice Amended) A computer program product comprising program code means which include a sequence of instructions all having the same predetermined bit length, said instructions including long instructions wherein said predetermined bit length defines a single operation and dual operation instructions, wherein said predetermined bit length defines two independent operations,

wherein the computer program product is adapted to run on a computer such that a long instruction defining a single operation controls the resources of the computer in a first way and a dual operation instruction defining two independent operations controls the resources of the computer in a second way, and each instruction of said predetermined bit length includes a set [fo] of identification bits at designated bit locations within the instruction, said identification bits being adapted to cooperate with a decode unit of a computer system to designate whether the instruction is a long instruction or a dual operation instruction.

15. (Amended) A method of operating a computer system which comprises first and second processing channels each having a plurality of functional units including at least one data processing unit and one memory access unit, the method comprising:

fetching a sequence of instructions from a program memory, all said instructions having the same predetermined bit length and containing a set of designated bits at predetermined bit locations within said bit length;

decoding each instruction, said decoding step including reading the values of said

designated bits to determine:

a) whether the instruction of said predetermined bit length defines a single

operation or two independent operations; and

b) where the instruction of said predetermined bit length defines two

independent operations, the nature of each of those operations selected at least

from a data processing category of operation and a memory access category of

operation.